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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,597	08/25/2003	S. Brandon Keller	100111221-1	2411

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EXAMINER

DIMYAN, MAGID Y

ART UNIT PAPER NUMBER

2825

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,597

Applicant(s)

KELLER ET AL.

Examiner

Magid Y. Dimyan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 9-18 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/6/04, 1/4/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is with regards to Application No. 10/647,597 filed August 25, 2003. Claims 1 – 21 are pending in this Application.

Specification

2. The disclosure is objected to because of the following informalities: page 1, paragraph 0001: the U.S. patent application serial numbers of the copending, co-filed applications are omitted.

Appropriate correction is required.

Claim Objections

3. Claims 1, 9, 16, 19, 20 and 21 are objected to because of the following informalities:
 - Claim 1, page 14, line 17, delete "HLSN" and insert --highest level signal name (HLSN)--.
 - Claim 9, page 16, line 12, delete "HLSN" and insert --highest level signal name (HLSN)--.
 - Claim 16, page 18, line 9, delete " said HLSN" and insert --highest level signal name (HLSN)--.
 - Claim 19, page 19, line 30, delete "HLSN" and insert --highest level signal name (HLSN)--.

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- Claim 20, page 20, line 19, delete "HLSN" and insert --highest level signal name (HLSN)--.
- Claim 21, page 21, line 5, delete "HLSN" and insert --highest level signal name (HLSN)--.

4. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 – 4 and 19 – 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Publication No. US 2003/0237067 A1 to Mielke et al. (hereinafter, "Mielke").

7. Referring to claims 1, 19, 20 and 21, Mielke discloses a method (claim 1), a system (claims 19 and 21) and a computer program (claim 20) for determining wire parasitics (parasitics always include wire capacitance) for a VLSI design comprising: (a) determining hierarchical blocks of a portion of the design (see Fig. 5, block 252; Fig. 6, blocks 604 – 618; page 6, paragraphs 0062 – 0065); (b) storing for a plurality of blocks

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indicia of the most accurate one of a plurality of wire capacitance data sources (see Fig. 2, block 256; Fig. 5, block 256; paragraph 0062); (c) generating a wire capacitance database with an entry of each net using information stored in at least one of the wire capacitance data sources (see Fig. 5; paragraphs 0062-0065); (d) generating a hierarchical connectivity model for the design (see Figs. 5 – 7; paragraphs 0080 – 0082) using a single type of connectivity data for each of the blocks (Fig. 7); wherein the single type of data is selected from either a layout (i.e., netlist – see Fig. 5, block 257) or a schematic diagram (see Fig. 3; paragraphs 0040 – 0046); and (e) using a hierarchical connectivity model and wire capacitance database to determine a cumulative wire capacitance value for each highest level signal name (HLSN) in each of the blocks in a portion of the design to be analyzed (see Fig. 6, blocks 604 – 612; Fig. 7, blocks 702 – 708; paragraphs 0072 – 0082). Thus, Mielke clearly teaches all the claimed limitations.

8. As per claim 2, see (7) above, as well as Fig. 7, blocks 704 – 708, which teach how the cumulative wire capacitance for each HLSN can be determined, as claimed.

9. Pursuant to claims 3 and 4, see (7) above, as well as paragraphs 0035, 0036, 0040, 0041, which collectively teach the claimed elements pertaining to using schematic connectivity data or layout data to generate the connectivity data used in determining wire parasitics.

Allowable Subject Matter

10. Claims 5 – 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 9 – 18 are allowed.

12. The following is a statement of reasons for the indication of allowable subject matter: prior art does not teach the claimed elements pertaining to the various data sources associated with HLSN and the claimed algorithm for determining the cumulative wire capacitance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magid Y. Dimyan whose telephone number is (571) 272-1889. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Magid Y Dimyan
Examiner
Art Unit 2825

myd
08 September 2005

Handwritten signature of Magid Y Dimyan, consisting of stylized initials 'MYD'.

STACY A. WHITMORE
PRIMARY EXAMINER

Handwritten signature of Stacy A. Whitmore, consisting of stylized initials 'SAW'.